

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

REMARKS/ARGUMENTS

STATUS OF THE APPLICATION

Claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-36 were pending in this application and examined.

Claims 1-5, 8, 11-15, 18, 21-25, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Ball et al. "Software Visualization in the Large", IEEE Computer, vol. 29, no.4, pp. 33-43 (hereinafter "Ball").

Claims 10, 20, 30, 32, 34, and 36 are rejected under 35 U.S.C. §103(a) as being unpatentable over Aalbersberg (U.S. Patent No. 5,946,678). Claims 7, 17, 27, 31, 33, and 35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ball in view of Greenberg et al. "Awareness Through views in relaxed-WYSIWIS Groupware", Proceedings of Graphic Interface, Toronto, Canada (1995) (hereinafter "Greenberg").

Applicant has amended claims 1, 10, 11, 20, 21, 30, 32, 34, and 36. Applicants submit that no new subject matter has been introduced by the amendments. Claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-36 remain pending in this application after filing of this amendment.

THE DRAWINGS

Applicant requests the Examiner to defer submission of the petition for colored photographs until allowable subject matter is indicated.

THE CLAIMS

Rejections under 35 U.S.C. 102(e)

Claims 1-5, 8, 11-15, 18, 21-25, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Ball.

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

Claim 1

Applicant submits that claim 1, as amended, is not anticipated by Ball. As amended, claim 1 recites:

1. ...

analyzing said electronically stored document to identify locations of discussion of said user-specified concept of interest in the electronically stored document; and

displaying, based upon the identified locations of discussion, a visual indicator showing concentrations of the user-specified concept of interest at locations within the electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest. (Applicant's claim 1, emphasis added)

As recited in claim 1, the visual indicator is displayed based upon the identified locations of discussion and shows concentrations of the user-specified concept of interest at locations within the electronically stored document. Further, the visual indicator comprises two axes: a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest. Examples of such visual indicators are shown in Figs. 1A, 1B, 4, 5, 7A, 7B, 7C, and 7D and described in the application specification.

Applicant submits that at least the above-discussed concepts of a visual indicator displaying concentrations of the user-specified concept of interest at locations within the electronically stored document and comprising a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest are not taught by Ball. In the sections of Ball identified by the Examiner in the Final Office Action, Ball teaches a "line representation" (displayed in the right pane in Fig. 1 of Ball) that reduces each line of text to a single row of pixels with row length and indentation tracking the original code. The lines are color-coded to show a statistic of interest. Each representation in Figure 1 shows the color and thus the distribution of the statistic in the code. (See Ball: pgs. 4 and 5).

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

Accordingly, Ball teaches identifying and highlighting (in a color) sections of the document that satisfy a statistic of interest (e.g., code age). However, unlike the present invention as recited in claim 1, Ball does not display any visual indicator that, based upon the identified locations of interest, displays concentrations (not just locations) of the user-specified concept of interest at locations within the electronically stored document. Additionally, Ball does not teach a visual indicator that comprises two axes as recited in claim 1: a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest.

Applicant thus submits that claim 1 is not anticipated by Ball for at least the reasons stated above.

Claims 2-5, and 8

Applicant submits that claims 2-5 and 8, which depend from claim 1, are also not anticipated by Ball for at least a similar rationale as discussed for claim 1, and others.

Further, the Examiner has indicated that Ball teaches a contour graph image (recited in claim 2), a line graph (recited in claim 3), a bar graph (recited in claim 4), and a scatter diagram (recited in claim 5). Applicant cannot see where such a teaching is shown in Ball. The sections of Ball identified by the Examiner merely teach a "line representation" (displayed in the right pane in Fig. 1 of Ball) that reduces each line of text to a single row of pixels with row length and indentation tracking the original code and the lines are color-coded to show a statistic of interest. The "line representation" is not the same as a contour graph image, a line graph, a bar graph, or a scatter diagram, as recited in the claims. Applicant requests the Examiner to show/clarify how a "line representation" anticipates a contour graph image, a line graph, a bar graph, or a scatter diagram, as recited in the claims. Applicant thus submits this is another reason why Ball fails to anticipate claims 2, 3, 4, and 5.

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

Claims 11-15, 18, 21-25, and 28

Applicant submits that claims 11 and 21, as amended, are not anticipated by Ball for at least a similar rationale as discussed above for claim 1.

Applicant submits that claims 12-15, and 18, and claims 22-25 and 28, which depend from claims 11 and 21 respectively, are also not anticipated by Ball for at least a similar rationale as discussed for claims 11 and 21, and others.

Claims 12-15 and 22-25 are additionally not anticipated by Ball for the additional reasons provided above for claims 2-5.

Rejections under 35 U.S.C. 103

Claims 7 and 31

Claims 7 and 31 depend from claim 1. As discussed above, the features of claim 1 of displaying a visual indicator showing concentrations of the user-specified concept of interest at locations within the electronically stored document and comprising a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest are not taught by Ball.

Applicant submits that these features are also not taught or suggested by Greenberg. Greenberg teaches "fisheye views" that show global and local detail within a single window. However, Greenberg does not teach or suggest a "visual indicator" as recited in claim 1. Applicant submits that even if the teachings of Ball and Greenberg were combined, the resultant combination would fail to teach or suggest a "visual indicator" as recited in claim 1.

Accordingly, Applicant submits that claim 1 is not taught or suggested by Ball in view of Greenberg. Consequently, Applicant respectfully submits that claims 7 and 31, which depend from claim 1, are also not taught or suggested by Ball or Greenberg, considered individually or in combination, for at least a similar rationale as discussed for claim 1, and others.

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

Claims 33, 17, 35, and 27

Applicant submits that claims 17, 33, 35, and 37 are not taught or suggested by Ball or Greenberg, considered individually or in combination, for at least a similar rationale as discussed for claims 7 and 31, and others.

Claims 10, 32, 20, 34, 30, and 36

Applicant submits that claim 10, as amended, is not made obvious by Aalbersberg. Claim 10, as amended, recites:

10. ...

analyzing said electronically stored document to identify locations in said electronically stored document where said first user-specified concept of interest is discussed; and  
displaying, based upon the identified locations in said electronically stored document where said first user-specified concept of interest is discussed, a visual indicator showing concentrations of the first-user specified concept of interest in said electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest. (Applicant's claim 10, as amended, emphasis added)

Applicant submits that Aalbersberg does not teach or suggest a "visual indicator" as recited in claim 10.

Aalbersberg teaches techniques for displaying information that indicates the relevance or weight of each query word in the selection of a document. In Aalbersberg, a distinctive representation is uniquely associated with each query word. Then, for each document found by applying the query words, an indicator is displayed for the document that employs the same distinctive representation to directly indicate to the user the relative contributions of the individual words of the query for the document. (Aalbersberg: col. 2 lines 1-8). The extent of the respective distinctive representations informs the user of the relative contribution or relevance of each of the query words for a document. (Aalbersberg: col. 2 lines 12-49).

However, unlike the present invention, as claimed in claim 1, Aalbersberg does not teach displaying a visual indicator showing the concentrations of the concepts (or query

Appl. No. 09/348,652  
Amtd. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

words) within the document. In fact, Aalbersberg is not concerned about where and how the query words are distributed within document—Aalbersberg is only concerned about displaying the weight of a particular query word in the selection of a document.

For example, as depicted in Fig. 3 of Aalbersberg, a plurality of query words are displayed and each word has a distinctive representation uniquely associated with it that is different for all of the words. For example, the word "car" is displayed on a lightly shaded background 41, the word "europe" is displayed on a heavily shaded background 43, and the word "sales" is displayed on a medium shaded background 43. (Aalbersberg: col. 5 lines 34-44) Fig. 4 of Aalbersberg displays names of documents found by applying the query words displayed in Fig. 3 of Aalbersberg. A second indicator 49 is displayed for each document. Indicator 49 displays the same distinctive representation, i.e., the shading, representing for the adjacent document the relative contributions of each of the query words. For example, the first document contains the word "car" only, but the word is important for the document. (Aalbersberg: col. 5 lines 45-58). The length of the shading uniquely associated with each word and displayed in indicator 49 indicate the importance of that word in the document. (Aalbersberg: col. 5 line 45 - col. 6 line 7).

However, unlike the present invention as recited in claim 1, indicator 49 in Aalbersberg Fig. 4 does not provide any indication of the concentrations of word "car" at locations within the document—it merely shows that the word "car" is found in the document and was heavily responsible for selection of the document. Likewise, indicator 49 associated with the last document in Fig. 4 of Aalbersberg indicates that words "car" and "sales" occur in the document and the importance of the words in the document. Again, this does not provide any indication of the concentrations of words "car" and "sales" at various locations within the document. (Aalbersberg: col. 6 lines 8-39).

Additionally, Aalbersberg does not teach or suggest a visual indicator that comprises two axes as recited in claim 10: a first axis representing locations within the electronically stored document and a second axis representing concentrations of a user-specified concept of interest.

Appl. No. 09/348,652  
Amdt. dated October 28, 2003  
Reply to Office Action of July 28, 2003

PATENT

Applicant thus submits that the present invention as recited in claim 10 is not made obvious by Aalbersberg for at least the reasons discussed above.

Applicant submits that independent claims 20 and 30 are also not made obvious by Aalbersberg for at least a similar rationale as discussed for claim 10, and others. Applicant further submits that claims 32, 34, and 36, which depend from claims 10, 20, and 30 respectively, should also be allowed for at least a similar rationale as discussed for allowing claims 10, 20, and 30, and others.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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